

IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) A method for control of an automatic transmission of a vehicle provided with an engine that drives the transmission, comprising:

detecting a downhill-travel situation of the vehicle via an electronic unit when a slope on which the vehicle is traveling is greater than a predetermined threshold slope, a power demand of the engine is smaller than a predetermined power threshold, and braking via a brake pedal is absent;

when the electronic unit detects the downhill-travel situation, storing a longitudinal speed at a beginning of the downhill-travel situation in a memory;

during the downhill-travel situation, comparing a current speed of the vehicle with the speed at the beginning of the downhill-travel situation; and

based on the comparing, choosing a transmission ratio such that the engine absorbs energy, comprising instructing the transmission to initiate downshifting if the current speed exceeds the speed at the beginning of the downhill-travel situation by a predetermined deviation,

wherein ~~the detecting the downhill-travel situation includes detecting whether a brake is applied via a brake pedal and,~~ when the ~~brake~~ braking is applied via the brake pedal, the downhill-travel situation is not detected.

2. (Canceled)

3. (Currently Amended) A control method according to claim 1, further comprising:
verifying that, before the downshifting is initiated, an energy-absorption capacity of the engine is smaller than ~~[[a]]~~ the predetermined power threshold.

4. (Previously Presented) A control method according to claim 3, wherein the energy-absorption capacity of the engine is determined by an engine speed.

5. (Currently Amended) A control method according to claim 3, wherein the predetermined power threshold is an increasing function of ~~[[a]]~~ the slope on which the vehicle is traveling.

6. (Previously Presented) A control method according to claim 1, wherein the deviation from the speed at the beginning of the downhill-travel situation is between 5 and 10 km/h.

7. (Previously Presented) A control method according to claim 1, wherein the vehicle is equipped with a speed-governing system.

8. (Currently Amended) A system for control of an automatic transmission of a vehicle provided with an engine that drives the transmission, comprising:

an electronic unit configured to:

identify a downhill-travel situation of the vehicle when a slope on which the vehicle is traveling is greater than a predetermined threshold slope, a power demand of the engine is smaller than a predetermined power threshold, and braking via a brake pedal is absent,

when the electronic unit identifies the down-hill travel situation, measure and store in a memory a longitudinal speed at a beginning of the downhill-travel situation, compare a current speed of the vehicle with the speed at the beginning of the

downhill-travel situation, and

instruct the transmission to initiate downshifting if the current speed exceeds the speed at the beginning of the downhill-travel situation by a predetermined deviation,

wherein the electronic unit does not identify the downhill-travel situation if ~~a brake~~ the braking is applied via ~~[[a]]~~ the brake pedal.

9. (Previously Presented) A vehicle, comprising:

an engine;

an automatic transmission driven by the engine; and

the system according to claim 8 to control the automatic transmission.

10. (Currently Amended) A control method according to claim 1, wherein the downhill-travel situation is not detected if an accelerator pedal is depressed such that ~~[[a]]~~ the power demand of the engine is larger than ~~[[a]]~~ the predetermined power threshold.

11. (Currently Amended) A system according to claim 8, wherein the electronic unit is configured to verify that, before the downshifting is initiated, an energy-absorption capacity of the engine is smaller than ~~[[a]]~~ the predetermined power threshold.

12. (Previously Presented) A system according to claim 11, wherein the energy-absorption capacity of the engine is determined by an engine speed.

13. (Previously Presented) A system according to claim 12, further comprising:
an engine controller configured to measure the engine speed.

14. (Currently Amended) A system according to claim 11, wherein the predetermined power threshold is an increasing function of ~~[[a]]~~ the slope on which the vehicle is traveling.

15. (Currently Amended) A system according to claim 8, wherein the electronic unit does not detect the downhill-travel situation if ~~[[a]]~~ the power demand of the engine from an accelerator pedal being depressed is larger than ~~[[a]]~~ the predetermined power threshold.